

Finance Research Paper  
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## **Paper 2**

### **Introduction**

The Independent Government Cost Estimate was a product of the Acquisition Planning Team to help provide a financial estimate for Federal funds used for public contracts. The IGCE would enable the government to know the necessary financial resources required by State and federal institutions for planning, security and general guidance (IGCE, 2014). The Department of Defense has requested the Multi-functional Hyper Widget Package MHPs devices to help monitor the performance of military satellites and networks. The next section of the paper explains the pricing for hardware, software, program applications, and developmental costs associated with the design of the MHP devices.

### **Explanations of the Costs Estimations for the MHPs Devices**

It is important to note the design, configuration, and development of effective MHP devices for the surveillance of military operations require a set of tools and applications. These resources will include hardware devices such as computers, laptops, routers, telephone, power back-ups, and imaging devices. The next category of resources is the software and application programs. The software captures; an operating system, anti-virus, databases, viewers, web browsers, and word application programs. The direct labor costs are used to pay and compensate software developers, computer engineers, technicians, and project managers. The indirect costs include expenses that were not initially projected or accounted for but which altogether must be financed for the continuity of the project (Lee, 2016).

### Hardware Devices

Hardware	Number	Notes and Descriptions	Estimated Cost
Computers	20	The computer system unit will handle information and data processing in the design of the MHPs. The computers will further support such functions as; information and data input, data storage, data processing [including data stored in the internal memory] and finally handling outputs. The ideal computers for this project are the HP Slimline, and their features include; HP Slimline 450 [23-inch, 8gb memory, 1tb hard disc, inbuilt Wi-Fi, A6-6310 AMD]	\$700,000
Routers	20	The routers for this project will be used for disseminating network internet waves. They will further facilitate internet connectivity across as part of developing the MHPs devices. These routers will feature or include; D-Link Ultra WI-FI [6 LED indicators, 600 – 3200 Mbps, 2 USB ports, 802.11b/g/NC, beamforming technology.	\$300,000
Printers	5	The ideal printers are the Dell Color Cloud [4.3-inch color screen, 250 sheet tray, WI-	\$200,000

		FI, job status, 50-sheet multipurpose feeder, post-script drivers, PCL, Ethernet, and USB]. The printers will be used to generate official content and printed materials. They are instrumental in the transfer of information and communication in the project.	
Monkey HTTP Daemon	10	This hardware is used for Scripting languages, SSL, CGI, log writer, security, real-time bidding, home automation, c-framework, big data, times 64 architectures, 250kb runtime, 100kb installation. It will assist in the provision of security details and profile storage to enhance security and surveillance.	\$400,000
Imaging Devices	5	They assist in the Intermediate transfer belts, toner fixing rollers, toner fixing tubes.	\$400,000
Power Back-up	10	The power back-ups will feature the following specifications: 800VA, higher hold times, efficient for long storages, emergency exits, offers uninterruptible power supply.	\$400,000

### Software Inventory

Software	Version	Notes and Description
Operating System	Mac OS 10.5	<p>The operating system is tasked with supporting software and program instructions in the design of the WHPs configurations. If failure is noted in selected programs, the OS will handle immediate problems. Specifications for this software include 512MB memory, 9gb disc space, DVD drive, photo booth, time machine, boot camp, front raw. Utilities include airport utility, activity monitor, audio MIDI set-up, grapher, disc utility, keychain access, network utility, and migration assistant.</p>
Anti-Virus Programs	Avast Anti-virus 2016	<p>The anti-virus programs will offer full protection from harmful programs like Trojan, worms, and adware. The ideal anti-virus applications will handle such operations as Office network security, smart scan, browser clean-up, anti-malware and antivirus, remote assistance, light-weight, office security for an unlimited number of PCs, faster detection</p>

		and elimination of malware, viruses, and potential attacks.
Word Processing Application	Microsoft Word 2018	Productivity tools for both office and home, installed in all 30 computers. The Word applications will feature specifications such as retina graphics, multi-touch gestures, full-screen mode, high proficiency in formatting, supports MAC OS features, high error detections, assistance in fast typing, spelling, proofreading, and higher optimal performances.
Database	Oracle and Microsoft SQL server.	This is a management system for system operations. The database will be used to store both accounting and administrative information and data as pertains to the development of the multi-functional hyper widget package. The database will also be used to secure the MHPs records [financial, HR, marketing, advertising, and distribution], managing operations, overseeing tasks, duties, and responsibilities assigned to different employees. Back-up and recovery will also support user-accessible catalogs.

Web Browsers	Mozilla Firefox	The web browser will be used for all browsing and surfing purposes by the workforce: software engineers, web developers, digital experts, and data personnel. The web browsers will feature: Chat and share support, bookmark supported, search the web anonymously. They will also support video connect, sync-supported, smooth browsing, private surfing, constant updates and add-on, manage preferences and add-on, and privacy protection.
Viewers	Microsoft Office Suite	This is a package of higher office productivity for the design and development of the MHP devices. The viewers will feature clear viewing, operates in Macintosh OS, includes Microsoft office, features additional programs such as; excel 2010, groove 2007, InfoPath 2007, publisher 2007, PowerPoint 2007, and Outlook 2010 [for client emails].
E-mail Client	Microsoft Outlook	The E-mail Client is an account used to handle constant communication and information conveyance between I.T personnel and technicians. The Microsoft

		<p>Outlook will be leveraged as it supports fast communication, new notifications, and any other information transfer between the specialists.</p> <p>Features include Gus Mail Users, IMAP configuration, import of calendars, and new account set-up for clients.</p>
Instant Messaging	Office Chat	<p>The software will be used to handle regular communications in the workforce. Features will include; Confined delivery, private and group messaging, designed discussions, real-time presence, instant notifications, video, image-sharing, drag-file and drop.</p>
Compression/Decompression	7-Zip	<p>This software will be used to transfer heavy documents, files, and media. Its features will include; High compression ratios, self-extracting capabilities, powerful commands, supports 87-languages, integration with windows, a plugin for file manager, packing and unpacking features.</p>



### Software Inventory Budget

Software Item	Cost [\$]
Operating system	200,000
Anti-virus program	300,000
Word Processing Application	100,000
Databases	200,000
Web browsers	250,000
Viewers	250,000
Email client	200,000
Instant Messaging	60,000
Compression and Decompression	40,000
Total	\$1600,000

### Direct Labor Costs

The Independent Government Cost Estimate provides that a total of 7,012, 700 will be used to finance the design and development of Multi-functional Hyper Wizard Packages. The finance is segmented into different financial allocations including the total labor costs, direct labor costs, and the indirect costs (Basu, 2016). The direct material costs are estimated to be \$4,000,000. The direct labor costs are \$922,500, and they cover salaries from I.T technicians, software engineers, and digital experts. The subcontracts accrue a cost of \$2,050,000 and include costs associated with outsourcing digital expertise, building contractual relationships, and technical resources.

INDEPENDENT GOVERNMENT COST ESTIMATE				
BASE YEAR: 01-01-18 - 01-01-19				
Multi-functional Hyper Widget Package (MHP)				
FFP				
<b>Total</b>			<b>\$9,373,688.20</b>	
DIRECT LABOR (BURDENED RATES)				
	Category	Rate	Amount	
1	Direct Material	\$400	\$4,000,000.00	Ref A
2	Direct Labor	\$63.18/hr	\$922,500.00	Ref B
3	Subcontracts		\$2,050,000.00	Ref C
4	Other Direct Costs		\$40,200.00	Ref D
<b>Total Direct Costs</b>			<b>\$7,012,700.00</b>	

**Total Indirect Costs**

The indirect costs refer to costs that were not initially accounted for but which had to be financed altogether for the successful completion of the project. The overheads for direct labor costs were estimated at \$833,326, the overhead costs for materials were \$300,000 and those of sub-contracts was \$41,000. The three had an overhead rate of 7.5%, 2%, and 0.00% consecutively. In total, the direct labor costs were \$1,174,326.

Indirect Costs				
	Category	Rate	Total	
1	Labor Overhead	7.50%	\$833,326.50	Ref E
2	Material Overhead	2.00%	\$300,000.00	Ref F
3	Subcontract Overhead	0.00%	\$41,000.00	Ref G
<b>Total Indirect Costs</b>			<b>\$1,174,326.50</b>	
<b>G&amp;A</b>				

## Conclusion

It is important to note that that direct labor costs were associated with labor and materials. The material cost was estimated at \$400per MHPs which led to a total of \$400,000 material costs. The labor overhead estimated percentage was 7.5% of total labor. This estimation was done based on the average of the billing histories of an enterprise of a similar nature as this. The replacement equipment was part of the budgetary allocation. Assemblies of processing equipment were determined by invoices and billings as 3-4% of the annual supplies cost. A rate of 8% of total costs was estimated based on the standards and thresholds of a start-up company. The above percentage addressed both the direct and the indirect costs. In conclusion, there was a high-quality *Independent Government Cost Estimation* developed to mitigate risk and determine a reasonable contract cost (USAID, 2015). It is easy to use the best practices to create a credible IGCE with proper knowledge of the financial market and understanding of MHPs deliverables. The result of these devices is to effectively mitigate and avoid risks associated with program management systems. Also, to assist government institutions, and federal agencies like the military to achieve proper surveillance of their networks and satellites.

## References

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